This Page Is Inserted by IFW Operations and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.



Subscribe (Full Service) Register (Limited Service, Free) Login

Search: • The ACM Digital Library • The Guide

+schema +<near> +object +<and> +database +<and> +(cla

US Patent & Trademark Office

THE ACM DIGITAL LIBRARY

Feedback Report a problem Satisfaction survey

Terms used

schema near object and database and classifier near location and request or query

Found 14 of 139.567

Sort results by

relevance

Save results to a Binder ? Search Tips

Try an Advanced Search Try this search in The ACM Guide

Display. results

expanded form

Open results in a new window

Results 1 - 14 of 14

Relevance scale

1 Fast detection of communication patterns in distributed executions

Thomas Kunz, Michiel F. H. Seuren

November 1997 Proceedings of the 1997 conference of the Centre for Advanced Studies on Collaborative research

Full text available: pdf(4.21 MB)

Additional Information: full citation, abstract, references, index terms

Understanding distributed applications is a tedious and difficult task. Visualizations based on process-time diagrams are often used to obtain a better understanding of the execution of the application. The visualization tool we use is Poet, an event tracer developed at the University of Waterloo. However, these diagrams are often very complex and do not provide the user with the desired overview of the application. In our experience, such tools display repeated occurrences of non-trivial commun ...

2 Research centers: Research activities in database management and information retrieval at University of Illinois at Chicago



Isabel Cruz, Ashfaq Khokhar, Bing Liu, Prasad Sistla, Ouri Wolfson, Clement Yu September 2002 ACM SIGMOD Record, Volume 31 Issue 3

Full text available: pdf(604.45 KB)

Additional Information: full citation, references

3 Semantics modeling issues for processing natural language database queries D. G. Shin



January 1990 Proceedings of the 1990 ACM annual conference on Cooperation

Full text available: 📆 pdf(884.25 KB) Additional Information: full citation, abstract, references, index terms

This work explores data semantics issues necessary for designing an NL interface capable of dealing with incomplete NL queries. First, the notion of incomplete NL queries is clarified to conclude the necessity for enriching the data semantics component of the system. An assumption made by the existing NL interfaces is expounded to argue that the approaches based on this assumption are unable to explore meta-knowledge about the stored data in the guery conversion process. A ...

Multilingual generation and summarization of job adverts: the TREE project Harold Somers, Bill Black, Joakim Nivre, Torbjörn Lager, Annarosa Multari, Luca Gilardoni, Jeremy Ellman, Alex Rogers

March 1997 Proceedings of the fifth conference on Applied natural language

processing

Full text available: pdf(865.00 KB) Publisher Site

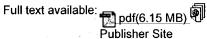
Additional Information: full citation, abstract, references

A multilingual Internet-based employment advertisement system is described. Job ads are submitted as e-mail texts, analysed by an example-based pattern matcher and stored in language-independent schemas in an object-oriented database. Users can search the database in their own language and get customized summaries of the job ads. The query engine uses symbolic case-based reasoning techniques, while the generation module integrates canned text, templates, and grammar rules to produce texts and hy ...

5 The FINITE STRING Newsletter: Abstracts of current literature

Computational Linguistics Staff

January 1987 Computational Linguistics, Volume 13 Issue 1-2



Additional Information: full citation

Machine learning in automated text categorization

Fabrizio Sebastiani

March 2002 ACM Computing Surveys (CSUR), Volume 34 Issue 1

Full text available: pdf(524.41 KB)

Additional Information: full citation, abstract, references, citings, index terms

The automated categorization (or classification) of texts into predefined categories has witnessed a booming interest in the last 10 years, due to the increased availability of documents in digital form and the ensuing need to organize them. In the research community the dominant approach to this problem is based on machine learning techniques: a general inductive process automatically builds a classifier by learning, from a set of preclassified documents, the characteristics of the categories. ...

Keywords: Machine learning, text categorization, text classification

⁷ XML access control: Access control of XML documents considering update operations

Chung-Hwan Lim, Seog Park, Sang H. Son

October 2003 Proceedings of the 2003 ACM workshop on XML security

Full text available: pdf(298.78 KB) Additional Information: full citation, abstract, references, index terms

As a large quantity of information is presented in XML format on the Web, there are increasing demands for XML security. Until now, research on XML security has been focused on the security of data communication using digital signatures or encryption technologies. As XML is also used for a data representation of data storage, XML security comes to involve not only communication security but also managerial security. Managerial security is guaranteed through access control, but existing XML acces ...

Keywords: XML document, XML update, access control

Application of intelligent agent technology for managerial data analysis and mining Ranjit Bose, Vijayan Sugumaran

January 1999 ACM SIGMIS Database, Volume 30 Issue 1

Full text available: pdf(1.96 MB)

Additional Information: full citation, abstract, index terms

7/16/04

Data analysis and mining technologies help bring business intelligence into organizational decision support systems (DSS). While a myriad of data analysis and mining technologies are commercially available today, organizations are seeing a growing gap between powerful storage (data warehouse) systems and the business users' ability to analyze and act effectively on the information they contain. We contend that to narrow this gap effectively, a data analysis and mining environment is needed that ...

Keywords: agent-based design, data mining, data warehouse, decision support systems, intelligent agents, multidimensional analysis, prototype implementation, statistical analysis, visualization

9 Research centers: Database research at UT Arlington
Sharma Chakravarthy, Alp Aslandogan, Ramez Elmasri, Leonidas Fegaras

Sharma Chakravarthy, Alp Aslandogan, Ramez Elmasri, Leonidas Fegaras, JungHwan Oh March 2003 **ACM SIGMOD Record**, Volume 32 Issue 1

Full text available: pdf(91.35 KB) Additional Information: full citation

10 Multiple underlying systems: translating user requests into programs to produce answers

Robert J. Bobrow, Philip Resnik, Ralph M. Weischedel

June 1990 Proceedings of the 28th conference on Association for Computational Linguistics

Full text available: pdf(375.29 KB)
Publisher Site

Additional Information: full citation, abstract, references

A user may typically need to combine the strengths of more than one system in order to perform a task. In this paper, we describe a component of the Janus natural language interface that translates intensional logic expressions representing the meaning of a request into executable code for each application program, chooses which combination of application systems to use, and designs the transfer of data among them in order to provide an answer. The complete Janus natural language system has been ...

11 <u>Securing information: Guarding the next Internet frontier: countering denial of information attacks</u>

Mustaque Ahamad, Leo Mark, Wenke Lee, Edward Omicienski, Andre dos Santos, Ling Liu, Calton Pu

September 2002 Proceedings of the 2002 workshop on New security paradigms

Full text available: pdf(918.49 KB) Additional Information: full citation, abstract, references, index terms

As applications enabled by the Internet become information rich, ensuring access to quality information in the presence of potentially malicious entities will be a major challenge. Denial of information (DoI) attacks attempt to degrade the quality of information by deliberately introducing noise that appears to be useful information. The mere availability of information is insufficient if the user must find a needle in a haystack of noise that is created by an adversary to hide critical informat ...

Keywords: countering information attacks, quality of information

12 Poster papers: Discovery net: towards a grid of knowledge discovery
V. Ćurčin, M. Ghanem, Y. Guo, M. Köhler, A. Rowe, J. Syed, P. Wendel
July 2002 Proceedings of the eighth ACM SIGKDD international conference on
Knowledge discovery and data mining

Results (page 1): +schema +<near> +object +<and> +database +<and> +(classifier +<nea... Page 4 of 4

Full text available: pdf(656.11 KB) Additional Information: full citation, abstract, references, index terms

This paper provides a blueprint for constructing collaborative and distributed knowledge discovery systems within Grid-based computing environments. The need for such systems is driven by the quest for sharing knowledge, information and computing resources within the boundaries of single large distributed organisations or within complex Virtual Organisations (VO) created to tackle specific projects. The proposed architecture is built on top of a resource federation management layer and is compos ...

13 Effective access to large audiovisual assets based on user preferences

S. Ioannou, G. Moschovitis, K. Ntalianis, K. Karpouzis, S. Kollias November 2000 **Proceedings of the 2000 ACM workshops on Multimedia**

Full text available: pdf(1.01 MB) Additional Information: full citation, abstract, references, index terms

Current multimedia databases contain a wealth of information in the form of audiovisual, as well as text data. Even though efficient search algorithms have been developed for either media, there still exists the need for abstract presentation and summarization of the results of database users' queries. Moreover, multimedia retrieval systems should be capable of providing the user with additional information related to the specific subject of the query, as well as suggest other topics which us ...

Keywords: multimedia databases, query expansion, text-based search, user profiling, web access

14 The C-ODA project: online access to electronic journals

Peter Kirstein, Goli Montasser-Kohsari

June 1996 Communications of the ACM, Volume 39 Issue 6

Full text available: pdf(1.24 MB) Additional Information: full citation, references, index terms, review

Results 1 - 14 of 14

The ACM Portal is published by the Association for Computing Machinery. Copyright © 2004 ACM, Inc.

Terms of Usage Privacy Policy Code of Ethics Contact Us

Useful downloads: Adobe Acrobat Q QuickTime Windows Media Player Real Player



Subscribe (Full Service) Register (Limited Service, Free) Login

Search: • The

The ACM Digital Library

O The Guide

JEAGUE)

US Patent & Trademark Office

THE ACM DIGITAL LIBRARY

Feedback Report a problem Satisfaction survey

Found 17 of 17

Sort results

by

Display results

relevance 💆

expanded form

Save results to a Binder

Search Tips

Open results in a new

Try an <u>Advanced Search</u>
Try this search in <u>The ACM Guide</u>

Results 1 - 17 of 17

Relevance scale

7/16/04

1 XML access control: Access control of XML documents considering update operations Chung-Hwan Lim, Seog Park, Sang H. Son

October 2003 Proceedings of the 2003 ACM workshop on XML security

window

Full text available: pdf(298.78 KB) Additional Information: full citation, abstract, references, index terms

As a large quantity of information is presented in XML format on the Web, there are increasing demands for XML security. Until now, research on XML security has been focused on the security of data communication using digital signatures or encryption technologies. As XML is also used for a data representation of data storage, XML security comes to involve not only communication security but also managerial security. Managerial security is guaranteed through access control, but existing XML acces ...

Keywords: XML document, XML update, access control

² A knowledge-base environment for the development of software parts composition systems

Bradley P. Allen, S. Daniel Lee

May 1989 Proceedings of the 11th international conference on Software engineering

Full text available: pdf(882.17 KB) Additional Information: full citation, references, citings, index terms

Research centers: Research activities in database management and information retrieval at University of Illinois at Chicago

Isabel Cruz, Ashfaq Khokhar, Bing Liu, Prasad Sistla, Ouri Wolfson, Clement Yu September 2002 **ACM SIGMOD Record**, Volume 31 Issue 3

Full text available: pdf(604.45 KB) Additional Information: full citation, references

⁴ Fast detection of communication patterns in distributed executions

Thomas Kunz, Michiel F. H. Seuren

November 1997 Proceedings of the 1997 conference of the Centre for Advanced Studies on Collaborative research

Full text available: pdf(4.21 MB)

Additional Information: full citation, abstract, references, index terms

Understanding distributed applications is a tedious and difficult task. Visualizations based on process-time diagrams are often used to obtain a better understanding of the execution of the application. The visualization tool we use is Poet, an event tracer developed at the University of Waterloo. However, these diagrams are often very complex and do not provide the user with the desired overview of the application. In our experience, such tools display repeated occurrences of non-trivial commun ...

Machine learning in automated text categorization Fabrizio Sebastiani

March 2002 ACM Computing Surveys (CSUR), Volume 34 Issue 1

Full text available: pdf(524.41 KB)

Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>, <u>citings</u>, <u>index</u>

The automated categorization (or classification) of texts into predefined categories has witnessed a booming interest in the last 10 years, due to the increased availability of documents in digital form and the ensuing need to organize them. In the research community the dominant approach to this problem is based on machine learning techniques: a general inductive process automatically builds a classifier by learning, from a set of preclassified documents, the characteristics of the categories. ...

Keywords: Machine learning, text categorization, text classification

6 Effective access to large audiovisual assets based on user preferences S. Ioannou, G. Moschovitis, K. Ntalianis, K. Karpouzis, S. Kollias November 2000 Proceedings of the 2000 ACM workshops on Multimedia

Full text available: pdf(1.01 MB) Additional Information: full citation, abstract, references, index terms

Current multimedia databases contain a wealth of information in the form of audiovisual, as well as text data. Even though efficient search algorithms have been developed for either media, there still exists the need for abstract presentation and summarization of the results of database users' queries. Moreover, multimedia retrieval systems should be capable of providing the user with additional information related to the specific subject of the query, as well as suggest other topics which us ...

Keywords: multimedia databases, query expansion, text-based search, user profiling, web access

Multiple underlying systems: translating user requests into programs to produce answers

Robert J. Bobrow, Philip Resnik, Ralph M. Weischedel

June 1990 Proceedings of the 28th conference on Association for Computational Linguistics

Full text available: pdf(375.29 KB)

Additional Information: full citation, abstract, references

Publisher Site

A user may typically need to combine the strengths of more than one system in order to perform a task. In this paper, we describe a component of the Janus natural language interface that translates intensional logic expressions representing the meaning of a request into executable code for each application program, chooses which combination of application systems to use, and designs the transfer of data among them in order to provide an answer. The complete Janus natural language system has been ...

The FINITE STRING Newsletter: Abstracts of current literature Computational Linguistics Staff

January 1987 Computational Linguistics, Volume 13 Issue 1-2

Full text available: pdf(6.15 MB) Publisher Site

Additional Information: full citation

9 Multilingual generation and summarization of job adverts: the TREE project Harold Somers, Bill Black, Joakim Nivre, Torbiörn Lager, Annarosa Multari, Luca Gilardoni, Jeremy Ellman, Alex Rogers

March 1997 Proceedings of the fifth conference on Applied natural language processing

Full text available: 📆 pdf(865.00 KB) Publisher Site

Additional Information: full citation, abstract, references

A multilingual Internet-based employment advertisement system is described. Job ads are submitted as e-mail texts, analysed by an example-based pattern matcher and stored in language-independent schemas in an object-oriented database. Users can search the database in their own language and get customized summaries of the job ads. The guery engine uses symbolic case-based reasoning techniques, while the generation module integrates canned text, templates, and grammar rules to produce texts and hy ...

10 Domain-independent natural language interfaces: TEAM: a transportable naturallanguage interface system

Barbara J. Grosz

February 1983 Proceedings of the first conference on Applied natural language processing

Full text available: pdf(527.96 KB) Publisher Site

Additional Information: full citation, references

11 Securing information: Guarding the next Internet frontier: countering denial of information attacks

Mustague Ahamad, Leo Mark, Wenke Lee, Edward Omicienski, Andre dos Santos, Ling Liu, Calton Pu

September 2002 Proceedings of the 2002 workshop on New security paradigms

Full text available: pdf(918.49 KB) Additional Information: full citation, abstract, references, index terms

As applications enabled by the Internet become information rich, ensuring access to quality information in the presence of potentially malicious entities will be a major challenge. Denial of information (DoI) attacks attempt to degrade the quality of information by deliberately introducing noise that appears to be useful information. The mere availability of information is insufficient if the user must find a needle in a haystack of noise that is created by an adversary to hide critical informat ...

Keywords: countering information attacks, quality of information

12 Poster papers: Discovery net: towards a grid of knowledge discovery V. Ćurčin, M. Ghanem, Y. Guo, M. Köhler, A. Rowe, J. Syed, P. Wendel July 2002 Proceedings of the eighth ACM SIGKDD international conference on Knowledge discovery and data mining

Full text available: pdf(656.11 KB) Additional Information: full citation, abstract, references, index terms

This paper provides a blueprint for constructing collaborative and distributed knowledge

discovery systems within Grid-based computing environments. The need for such systems is driven by the quest for sharing knowledge, information and computing resources within the boundaries of single large distributed organisations or within complex Virtual Organisations (VO) created to tackle specific projects. The proposed architecture is built on top of a resource federation management layer and is compos ...

13 The OODB path-method generator (PMG) using access weights and precomputed access relevance

Ashish Mehta, James Geller, Yehoshua Perl, Erich Neuhold
February 1998 The VLDB Journal — The International Journal on Very Large Data
Bases, Volume 7 Issue 1

Full text available: pdf(265.48 KB) Additional Information: full citation, abstract, index terms

A path-method is used as a mechanism in object-oriented databases (OODBs) to retrieve or to update information relevant to one class that is not stored with that class but with some other class. A path-method is a method which traverses from one class through a chain of connections between classes and accesses information at another class. However, it is a difficult task for a casual user or even an application programmer to write path-methods to facilitate queries. This is because it miq ...

Keywords: Access relevance, Access weight, OODB queries, Object-oriented databases, Path-method, Traversal algorithms

14 Research centers: Database research at UT Arlington

Sharma Chakravarthy, Alp Aslandogan, Ramez Elmasri, Leonidas Fegaras, JungHwan Oh March 2003 **ACM SIGMOD Record**, Volume 32 Issue 1

Full text available: pdf(91.35 KB) Additional Information: full citation

15 <u>Application of intelligent agent technology for managerial data analysis and mining</u> Ranjit Bose, Vijayan Sugumaran

January 1999 ACM SIGMIS Database, Volume 30 Issue 1

Full text available: pdf(1.96 MB) Additional Information: full citation, abstract, index terms

Data analysis and mining technologies help bring business intelligence into organizational decision support systems (DSS). While a myriad of data analysis and mining technologies are commercially available today, organizations are seeing a growing gap between powerful storage (data warehouse) systems and the business users' ability to analyze and act effectively on the information they contain. We contend that to narrow this gap effectively, a data analysis and mining environment is needed that ...

Keywords: agent-based design, data mining, data warehouse, decision support systems, intelligent agents, multidimensional analysis, prototype implementation, statistical analysis, visualization

16 The C-ODA project: online access to electronic journals

Peter Kirstein, Goli Montasser-Kohsari

June 1996 Communications of the ACM, Volume 39 Issue 6

Full text available: pdf(1.24 MB) Additional Information: full citation, references, index terms, review

¹⁷ Semantics modeling issues for processing natural language database queries

D. G. Shin
January 1990 Proceedings of the 1990 ACM annual conference on Cooperation

Full text available: pdf(884.25 KB) Additional Information: full citation, abstract, references, index terms

This work explores data semantics issues necessary for designing an NL interface capable of dealing with incomplete NL queries. First, the notion of incomplete NL queries is clarified to conclude the necessity for enriching the data semantics component of the system. An assumption made by the existing NL interfaces is expounded to argue that the approaches based on this assumption are unable to explore meta-knowledge about the stored data in the query conversion process. A ...

Results 1 - 17 of 17

The ACM Portal is published by the Association for Computing Machinery. Copyright © 2004 ACM, Inc.

<u>Terms of Usage Privacy Policy Code of Ethics Contact Us</u>

Useful downloads: Adobe Acrobat Q QuickTime Windows Media Player Real Player

Subscribe (Full Service) Register (Limited Service, Free) Login

Search: • The ACM Digital Library +schema +<near>object

O The Guide

13/6(4)

THE ACM DIGITAL LIBRARY

Feedback Report a problem Satisfaction survey

Terms used schema near object

Found 2 of 139.567

Relevance scale ...

Sort results bv

relevance

Save results to a Binder Search Tips

Open results in a new

Try an Advanced Search Try this search in The ACM Guide

Display results

expanded form

window

Results 1 - 2 of 2

Obsolescence and self-assessment

Paul Armer

June 1972 Proceedings of the tenth annual SIGCPR conference

Full text available: pdf(753.88 KB) Additional Information: full citation, abstract, citings, index terms

I want to talk to you about a problem which I believe deserves the attention of each of you as individuals and of SIGCPR as a group. You might think of it as a health problem. The disease at issue is an insidious one—many who have it are completely unaware of their illness. Many who have it refuse to admit, sometimes even to themselves, that it is serious enough to warrant attention. If unchecked, it can lead to other serious health problems, both physical and psychological.

2 Ubiquitous WWW: Implementing physical hyperlinks using ubiquitous identifier resolution

Tim Kindbera

May 2002 Proceedings of the eleventh international conference on World Wide Web

Additional Information: full citation, abstract, references, citings, index terms Full text available: pdf(400.83 KB)

Identifier resolution is presented as a way to link the physical world with virtual Web resources. In this paradigm, designed to support nomadic users, the user employs a handheld, wirelessly connected, sensor-equipped device to read identifiers associated with physical entities. The identifiers are resolved into virtual resources or actions related to the physical entities - as though the user 'clicked on a physical hyperlink'. We have integrated identifier resolution with the Web so that it ca ...

Keywords: identifier resolution, mobile computing, nomadic computing, physical hyperlinks, ubiquitous computing

Results 1 - 2 of 2

The ACM Portal is published by the Association for Computing Machinery. Copyright © 2004 ACM, Inc. Terms of Usage Privacy Policy Code of Ethics Contact Us

Useful downloads: Adobe Acrobat QuickTime Windows Media Player Real Player

IEEE HOME | SEARCH IEEE | SHOP | WEB ACCOUNT | CONTACT IEEE



Membership Publications/Services Standards C

IEEEXplore
RELEASE 1.8

Unit

Help FAQ Terms IEEE Peer Review Quick Links

cometeness careers, oca

Welcome
United States Patent and Trademark Office

Welcome to	IEEE <i>Xplore®</i>

O- Home

)- What Can I Access?

O- Log-out

Tables of Contents

O- Journals & Magazines

Conference Proceedings

O- Standards

Search

O- By Author

O- Basic

O- Advanced

Member Services

O- Join IEEE

O- Establish IEEE Web Account

O- Access the IEEE Member Digital Library

<u>Halle to the youther</u>

O Access the IEEE Enterprise File Cabinet

Print Format

Your search matched 5 of 1051129 documents.

A maximum of **500** results are displayed, **15** to a page, sorted by **Relevance Descending** order.

Refine This Search:

You may refine your search by editing the current search expression or enterinew one in the text box.

schema <near> object <and> database <and> classif*

Search

☐ Check to search within this result set

Results Key:

JNL = Journal or Magazine CNF = Conference STD = Standard

1 Proceedings of IEEE 9th International Conference on Data Engineer

Data Engineering, 1993. Proceedings. Ninth International Conference on , 19-April 1993

[Abstract] [PDF Full-Text (308 KB)] IEEE CNF

2 Query pairs as hypertext links

Tanaka, K.; Nishikawa, N.; Hirayama, S.; Nanba, K.;

Data Engineering, 1991. Proceedings. Seventh International Conference on , 8 April 1991 $\,$

Pages:456 - 463

[Abstract] [PDF Full-Text (552 KB)] IEEE CNF

3 Classifying schematic and data heterogeneity in multidatabase syste

Kim, W.; Seo, J.;

Computer, Volume: 24, Issue: 12, Dec. 1991

Pages:12 - 18

[Abstract] [PDF Full-Text (620 KB)] IEEE JNL

4 Mapping DTDs to object-oriented schemas

Yangjun Chen; McFadyen, R.; Fungyee Chan;

Web Information Systems Engineering, 2001. Proceedings of the Second International Conference on , Volume: 1 , 3-6 Dec. 2001

Pages:161 - 170 vol.1

[Abstract] [PDF Full-Text (906 KB)] IEEE CNF

5 Object migration mechanisms to support updates in object-oriented

databases

El-Sharkawi, M.E.; Kambayashi, Y.; Databases, Parallel Architectures and Their Applications,. PARBASE-90, International Conference on , 7-9 March 1990 Pages: 378 - 387

[Abstract] [PDF Full-Text (968 KB)]

Home | Log-out | Journals | Conference Proceedings | Standards | Search by Author | Basic Search | Advanced Search | Join IEEE | Web Account |
New this week | OPAC Linking Information | Your Feedback | Technical Support | Email Alerting | No Robots Please | Release Notes | IEEE Online
Publications | Help | FAQ | Terms | Back to Top

Copyright © 2004 IEEE - All rights reserved

L Number	Hits	Search Text	DB	Time stamp
2	1063	schema near3 object	USPAT;	2004/07/16 11:46
		·	US-PGPUB;	
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
3	0	(schema near3 object) same classifier	USPAT;	2004/07/16 11:46
	Ü	Continua neuro cogoso, sunto stassino	US-PGPUB;	
			EPO; JPO;	
			DERWENT;	
		•	IBM TDB	
4	133	(schema near3 object) and ((classif\$3 or categor\$3) with object)	USPAT;	2004/07/16 11:50
7	133	(Schema hears object) and ((classifus of categorus) with object)	EPO; JPO;	2004/07/10 11.30
			DERWENT;	
_	22	((h	IBM_TDB	2004/07/16 11.52
5	22	((schema near3 object) and ((classif\$3 or categor\$3) with object)) and	USPAT;	2004/07/16 11:53
		((classif\$3 or categor\$3) with location)	EPO; JPO;	
			DERWENT;	
	224		IBM_TDB	
6	221	(schema near3 object) and 707/103	USPAT;	2004/07/16 11:53
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
8	128	((schema near3 object) and 707/103) and database and index	USPAT;	2004/07/16 11:57
-			US-PGPUB;	
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
9	83	(((schema near3 object) and 707/103) and database and index) and SQL	USPAT;	2004/07/16 11:57
1	•		US-PGPUB;	
}			EPO; JPO;	
			DERWENT;	
		•	IBM_TDB	
10	101	(((schema near3 object) and 707/103) and database and index) and	USPAT;	2004/07/16 12:04
		((request or query or search) same database)	US-PGPUB;	
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
11	94	(((schema near3 object) and 707/103) and database and index) and	USPAT;	2004/07/16 12:07
		((request or query or search) with database)	US-PGPUB;	
			EPO; JPO;	
			DERWENT;	
			IBM TDB	
12	1	((((schema near3 object) and 707/103) and database and index) and	USPĀT;	2004/07/16 12:10
	_	((request or query or search) with database)) and ("schema object" with	US-PGPUB;	
		location)	EPO; JPO;	
			DERWENT;	
			IBM TDB	
13	1	((((schema near3 object) and 707/103) and database and index) and	USPAT;	2004/07/16 12:11
	•	((request or query or search) same database)) and ("schema object" with	US-PGPUB;	
		location)	EPO; JPO;	
		1	DERWENT;	
			IBM_TDB	
14	11	((((schema near3 object) and 707/103) and database and index) and	USPAT;	2004/07/16 12:11
17	11	(((schema hears object) and 7077103) and database and index) and ((request or query or search) same database)) and (schema with location)	US-PGPUB;	2004/07/10 12.11
		((request of query of scarcif) same database)) and (schema with location)	· ·	
			EPO; JPO;	
			DERWENT;	
L			IBM_TDB	



US005835910A

United States Patent [19]

Kavanagh et al.

[11] Patent Number:

5,835,910

[45] Date of Patent:

Nov. 10, 1998

[54] METHOD AND SYSTEM FOR COMPARING ATTRIBUTES IN AN OBJECT-ORIENTED MANAGEMENT SYSTEM

[75] Inventors: Thomas S. Kavanagh; Christopher W. Beall, both of Boulder; William C. Heiny, Arvada; John D. Motycka, Evergreen; Samuel S. Pendleton, Louisville; Brooke E. Terpening, Golden; Kenneth A. Traut, Boulder, all

of Colo.

[73] Assignee: Cadis, Inc., Boulder, Colo.

[21] Appl. No.: 526,555

[22] Filed:

Sep. 12, 1995

Related U.S. Application Data

[63]	Continuation-in-part of Ser. No. 339,481, Nov. 10, 1994.		
[51]	Int. Cl. 6	G06F 17/30	
[52]	U.S. Cl	707/103; 707/104; 707/203;	
	•	364/468.04	
[58]	Field of Search	395/614, 615,	

[56] References Cited

U.S. PATENT DOCUMENTS

395/619; 364/424.034, 468.04; 707/103,

3,343,133	9/1967	Dirks 3	340/172.5
4,318,184	3/1982	Millet et al	364/900
4,887,206	12/1989	Natarajan	364/401
4,930,071	5/1990	Tou et al	364/300

4,984,155	1/1991	Geier et al	364/401
5,021,992	6/1991	Kondo	364/900
5,109,337	4/1992	Ferriter et al	364/401
5,133,075	7/1992	Rissch	395/800
5,146,404	9/1992	Calloway et al	364/401
5,191,534	3/1993	Orr et al	364/468
5,210,868	5/1993	Shimada et al	395/600
5,257,365	10/1993	Powers et al	395/600
5,260,866	11/1993	Lisinski et al	364/401
5,283,865	2/1994	Johnson	395/161

OTHER PUBLICATIONS

PCT International Search Report, dated Apr. 22, 1996, International Appl. No. PCT/US95/15028 for CADISD, Inc., 4 pages.

Primary Examiner—Wayne Amsbury
Assistant Examiner—Diane D. Mizrahi
Attorney, Agent, or Firm—Burns, Doane, Swecker &
Mathis, L.L.P.

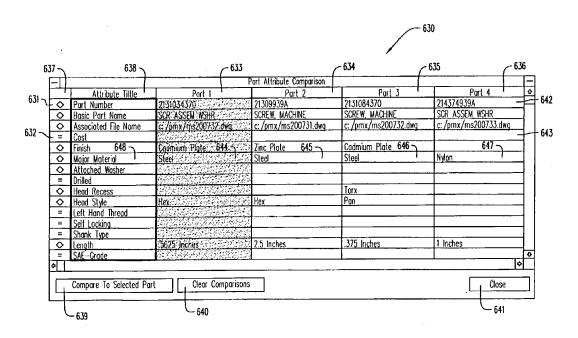
[57]

104, 203

ABSTRACT

The present invention is an improvement upon an object oriented database management system and provides a method and apparatus for a user to visually compare attribute values of instances retrieved in a search in a way that highlights attribute values that do not match or are not equal. The present invention provides a method and apparatus for determining which of the attributes are not equal or do not match, and which attribute values are the same for all of the instances that are retrieved by a search. A method and apparatus is provided for visually indicating such determinations in a way that is immediately understandable by a user.

27 Claims, 69 Drawing Sheets





6/1998 Anwar 345/355 7/1998 Hogan et al. 707/10

7/1998 Kolawa et al. 395/183.14

United States Patent [19]

Mullins

5,720,007

5,727,950

5,761,499

5,761,509

Patent Number: [11]

5,857,197

Date of Patent:

Primary Examiner—Wayne Amsbury

Jan. 5, 1999

[54]	SYSTEM AND METHOD FOR ACCESSING DATA STORES AS OBJECTS		
[75]	Inventor: Ward Mullins, San Francisco, Calif.		
[73]	Assignee: Thought Inc., San Francisco, Calif.		
[21]	Appl. No.: 822,254		
[22]	Filed: Mar. 20, 1997		
	Int. Cl. ⁶ G06F 17/30 U.S. Cl. 707/103; 707/102 Field of Search 707/103, 102		
[56]	References Cited		

[57]	ABS	STRACT

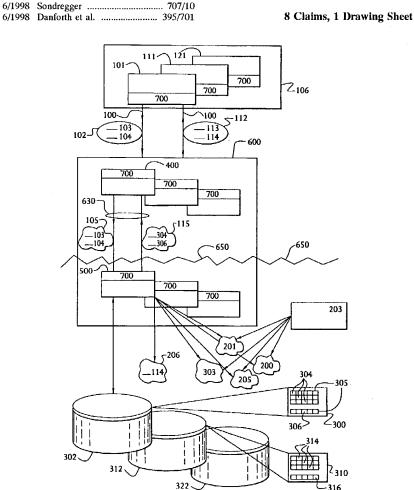
5,767,854

5,778,368 5,784,553

Monaco, PC

A system and a method for accessing a data store as objects from an object application. The accessed data store could be either an object data store or a non-object (e.g. relational) data store. The system includes an object schema including meta data corresponding to a data store schema and an adapter abstraction layer. The adapter abstraction layer comprises a first adapter, and a second adapter. One embodiment of the system includes an object schema manager to create and maintain the object schema at run time. It comprises a dynamic, scalable, centrally managed, and secure method for accessing data stored in both object and non-object (e.g. relational) data stores, effecting a consistent interface to the data store regardless of its underlying structure, or a method of transport and level of security.

Attorney, Agent, or Firm-Seidel, Gonda, Lavorgna &



2/1998 Hekmatpour 706/50

3/1998 Cook et al. 434/350



United States Patent [19]

Bentley et al.

[11] Patent Number:

6,063,128

[45] **Date of Patent:**

May 16, 2000

[54] OBJECT-ORIENTED COMPUTERIZED MODELING SYSTEM

[75] Inventors: Keith Bentley, Glenmore, Pa.; Samuel Wilson, Wilmington, Del.; Earlin Lutz, West Chester, Pa.; James Bartlett, Elverson, Pa.; John Gooding, Spring

City, Pa.

[73] Assignee: Bentley Systems, Incorporated, Exton, Pa.

[21] Appl. No.: **08/966,888**

[22] Filed: Nov. 10, 1997

Related U.S. Application Data

[62] Division of application No. 08/612,622, Mar. 6, 1996, Pat. No. 5,815,415.

[60] Provisional application No. 60/010,234, Jan. 19, 1996, and provisional application No. 60/011,285, Feb. 7, 1996.

395/683, 500.28, 701, 500.01, 964; 707/103; 364/474.24; 706/919

[56] References Cited

U.S. PATENT DOCUMENTS

4.809.170	2/1989	Leblang et al 395/705
4,951,192		Chase, Jr. et al 395/706
5,339,435		Lubkin et al
5,347,632	9/1994	Filepp et al 709/202
5,437,027	7/1995	Bannon et al 707/103
5,546,595	8/1996	Norman et al 395/500.42
5,625,580	4/1997	Read et al 395/500.92
5,634,010	5/1997	Ciscon et al 709/223
5,815,415	9/1998	Bentley et al 395/500.24
5,911,074	6/1999	Leprince et al 395/701
5,987,242	11/1999	Bentley et al 395/500.34

OTHER PUBLICATIONS

Dasgupta, P.; LeBalnc, R. J., Jr.' Ahamad, M.; Ramachandran, U.; "The Clouds Distrubted Operatin System", Computer, vol. 24, Issue 11, pp. 34–44, Nov. 1991.

Kramer, D; Joy, B.; Spenoff, D.; "The Java™ Platform: A White Paper", JavaSoft, Sun Microsystems Inc., Mountain View, CA, May 1996.

Mitchell, J. G.; Gibbons, J. J.; Hamilton, G.; Kessler, P.B. Khalidi, Y. A.; Kougiouris, P.; Madany, P.W.; Nelson, M. N.; Powell, M. L.; Radia, S. R.; "An Overview of the Spring System", Digest of Papers-COMPCON Spring '94, pp. 122-131, Apr. 1994.

(List continued on next page.)

Primary Examiner—Kevin J. Teska Assistant Examiner—Douglas W. Sergent Attorney, Agent, or Firm—Akin, Gump, Strauss, Hauer & Feld, L.L.P.

[57] ABSTRACT

A computer system for modeling is disclosed, where the computer system has a storage device, first and second platforms, a portable persistent model, and first and second platform-dependent computerized modeling systems (CMS). Each platform is interfaced to the storage device and provides system-dependent services. The first platform has a first type of operating system and a first type of computer hardware including a first memory, and the second platform has a second type of operating system and a second type of computer hardware including a second memory. The model resides in the storage device in a platform-independent format and includes persistent component objects. The first CMS resides in the first platform memory and the second platform-dependent CMS resides in the second platform memory. Each CMS provides CMS services including retrieving the model from the storage device, manipulating the model, changing the model by adding and removing persistent objects, and persistently saving the model to the storage device. Each CMS includes a static kernel and a dynamic framework. The kernel executes on the platform and interfaces to the operating system and the computer hardware, and provides services necessary to load and execute CMS services and to interface to the platform services. The framework executes on the platform and interfaces to the kernel, provides a platform-independent visual interface between the CMS and a CMS user, and employs the services of the kernel.

24 Claims, 17 Drawing Sheets

